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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JURGEN SCHMIDT-THUMMES, JURGEN HARTMANN, and
CHUNG-JI TSCHANG

Appeal 2010-003287
Application 10/541,206
Technology Center 1700

Before ADRIENE LEPIANE HANLON, PETER F. KRATZ, and
LINDA M. GAUDETTE, *Administrative Patent Judges*.

GAUDETTE, *Administrative Patent Judge*.

DECISION ON APPEAL¹

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's decision² finally rejecting claims 1-12, the only claims pending in the Application.³ We have jurisdiction under 35 U.S.C. § 6(b).⁴

We AFFIRM.

Claim 1 is representative of the invention and is reproduced below from the Claims Appendix to the Appeal Brief:

1. A process for preparing a stable aqueous copolymer dispersion comprising free-radically initiated aqueous emulsion polymerization of

- a) from 19.9 to 80 parts by weight of conjugated aliphatic dienes,
- b) from 19.9 to 80 parts by weight of vinylaromatic compounds,
- c) from 0.1 to 10 parts by weight of ethylenically unsaturated carboxylic acids and/or dicarboxylic acids,
- d) from 0 to 20 parts by weight of ethylenically unsaturated carbonitriles, and
- e) from 0 to 20 parts by weight of copolymerizable compounds other than monomers b),

the total amount of ethylenically unsaturated monomers a) to e) being 100 parts by weight, in the presence of water and from 0.1 to 5 parts by weight, based on the total monomer amount, of emulsifiers comprising

- f) sulfuric monoesters of ethoxylated fatty acid alcohols and/or
- g) salts of esters and monoesters of alkylpolyoxyethylenesulfosuccinates,

² Final Office Action mailed Sep. 3, 2008 ("Final").

³ Appeal Brief filed May 13, 2009 ("App. Br.").

⁴ An oral hearing was conducted on Jan. 11, 2011.

from 15 to 85% by weight of the total emulsifiers used being added within the time taken to reach up to 40% of the total conversion of the monomers a) to e), and from 1 to 50% of the carboxylic acid groups deriving from the monomers c) being neutralized by addition of base, wherein the partial neutralization of the monomers c) takes place before the polymerization.

The Examiner maintains the following grounds of rejection:

1. claims 1-8 under 35 U.S.C. § 103(a) over Ostrowicki (US 5,910,534, issued Jun. 08, 1999) in view of Basu (US 4,458,057, issued Jul. 03, 1984) (Ans.⁵ 3-6); and
2. claims 9-12 under 35 U.S.C. § 103(a) over Ostrowicki in view of Kimura (US 4,985,514, issued Jan. 15, 1991) or Egraz (US 6,184,321 B1, issued Feb. 06, 2001) (Ans. 6-8).

Appellants do not present separate arguments in support of patentability of any particular claim or claim grouping. Accordingly, we decide the appeal of grounds of rejection 1 and 2 on the basis of independent claims 1 and 9, respectively. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Appellants raise the following issue for our consideration:

Did the Examiner err in determining that a preponderance of the evidence, taking into account Appellants' evidence of unexpected results, weighs in favor of obviousness of the appealed claims? (*See* App. Br. 5 ("The Office failed to give Appellants' factual evidence sufficient weight when determining patentability.").)

We answer this question in the negative for the reasons explained below.

⁵ Examiner's Answer mailed Aug. 5, 2009.

With respect to independent claims 1 and 9, the Examiner finds “[t]he only difference between the claimed process for preparing a stable aqueous copolymer dispersion and [Ostrowicki] is that the partial neutralization of the ethylenically unsaturated carboxylic acids and/or dicarboxylic acids occurs prior to the polymerization.” (Ans. 4, 7.) The Examiner contends it would have been obvious to one of ordinary skill in the art at the time of Appellants’ invention to have performed a partial neutralization step prior to polymerization in Ostrowicki’s method based on the teachings of Basu (Ans. 4-6 (as to claim 1), Kimura and Egraz (Ans. 7-8 (as to claim 9))).

To render an invention obvious, the prior art does not have to address the same problem addressed by a patent applicant. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 420 (2007); *In re Dillon*, 919 F.2d 688, 693 (Fed. Cir. 1990).

Appellants do not challenge the Examiner’s findings with respect to the secondary references. (*See generally*, App. Br. 5-9.) Appellants do not disagree with the Examiner’s contention that one of ordinary skill in the art would have been motivated to carry out neutralization before polymerization in Ostrowicki’s method: (1) “in order to insure the stabilization of the monomer droplets therein during the subsequent stirred reaction period” as taught by Basu (Ans. 6) and (2) to obtain “water absorbent polymer excelling in absorption properties and containing residual monomer only in a small amount” as taught by Kimura and Egraz (Ans. 7-8). (*See generally*, App. Br. 5-9.) Nor do Appellants disagree that the Examiner’s proposed combinations of Ostrowicki and Basu, and Ostrowicki and Kimura or Egraz, if proper, would have resulted in the claim 1 and claim 9 methods, respectively. (*Id.*)

“[W]hen a prima facie case is made, the burden shifts to the applicant to come forward with evidence and/or argument supporting patentability.” *In re Sullivan*, 498 F.3d 1345, 1351 (Fed. Cir. 2007) (citing *In re Glaug*, 283 F.3d 1335, 1338 (Fed. Cir. 2002)).

Appellants’ arguments in support of patentability of the appealed claims are based solely on their contention that the “claimed invention is substantially superior in comparison to the process of Ostrowicki as evidenced by a reduction in coagulum formation.” (App. Br. 5.)

“[B]y definition, any superior property must be *unexpected* to be considered as evidence of non-obviousness.” *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1371 (Fed. Cir. 2007). “[W]hen unexpected results are used as evidence of nonobviousness, the results must be shown to be unexpected compared with the closest prior art.” *In re Baxter Travenol Labs.*, 952 F.2d 388, 392 (Fed. Cir. 1991).

The Examiner found that “Ostrowski’s [sic] process for preparing a stable aqueous copolymer dispersion . . . is the closest prior art.” (Ans. 10.) Appellants’ evidence of unexpected results is limited to a single example and comparison example which appear in the Specification (Spec. 8-10). (App. Br. 7 (“Appellants submit that the side-by-side comparison of the original specification is sufficient to rebut the Office’s assertion of obviousness and thus the rejection of Claims 1-8 as obvious over Ostrowicki should be overturned.”); *see also*, App. Br. 9 (arguing the same as to claims 9-12).) Appellants indicate the Specification comparison example is “essentially the same” as Ostrowicki’s Example 3 (App. Br. 7), but contend the comparison example is “closer than the closest prior art” because the process of the invention differs from the comparison example “only in that

partial neutralization of the monomer mixture ‘takes place before the polymerization’.” (Rep. Br.⁶ 2.)

The Examiner provides a detailed analysis of Appellants’ evidence of unexpected results in the Response to Argument section of the Answer. (*See* Ans. 8-11.) Appellants and the Examiner disagree over whether the comparison evidence in the Specification demonstrates that Appellants’ method achieves an unexpected reduction in coagulum. (*Compare* Rep. Br. 1-3 *with* Ans. 8-11.)

Although secondary considerations must be taken into account, unexpectedly superior results will not necessarily overcome a strong case of obviousness. *Pfizer*, 480 F.3d at 1372.

Even assuming Appellants’ comparison evidence does show unexpected results,⁷ we nonetheless find that a preponderance of the evidence favors the Examiner’s obviousness determination. As noted by the Examiner (Ans. 10), claims 1 and 9 recite aqueous monomer mixtures comprising from 19.9 to 80 parts by weight of conjugated aliphatic dienes, from 19.9 to 80 parts by weight of vinylaromatic compounds, etc. However, only one mixture of acrylic acid, styrene and butadiene was tested in the Example and Comparison Example. (*See id.*) The record contains no evidence comparing the amounts of coagulum produced when other monomer mixtures within the scope of the appealed claims are used in Appellants’ method and Ostrowicki’s method. In other words, Appellants’ evidence is not persuasive of non-obviousness because it is not

⁶ Reply Brief filed Oct. 5, 2009.

⁷ A difference in results between the claimed invention and the prior art does not alone constitute probative evidence of non-obviousness. *In re Freeman*, 474 F.2d 1318, 1324 (CCPA 1973).

commensurate in scope with the claims. *See In re Tiffin*, 448 F.2d 791, 792 (CCPA 1971) (“[O]bjective evidence of non-obviousness must be commensurate in scope with the claims which the evidence is offered to support.”).⁸

For the foregoing reasons, we sustain both grounds of rejection.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1).

AFFIRMED

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⁸ *See also, In re Harris*, 409 F.3d 1339, 1344 (Fed. Cir. 2005) (“The Board also correctly reasoned that the showing of unexpected results is not commensurate in scope with the degree of protection sought by the claimed subject matter because the elemental composition of CMSX®-486 is at or near the midpoint of the claimed range. While Harris’s evidence may show a slight improvement over some alloys, the record does not show that the improved performance would result if the weight-percentages were varied within the claimed ranges. Even assuming that the results were unexpected, Harris needed to show results covering the scope of the claimed range.”); *In re Lindner*, 457 F.2d 506, 509 (CCPA 1972) (agreeing with the Patent Office that there is no “adequate basis for reasonably concluding that the great number and variety of compositions included by the claims would behave in the same manner as the [single] tested composition.”).